

STATE OF ARIZONA  
Clean Water Act Section 401 Water Quality Certification  
U.S. Army Corps of Engineers File No.: SPL-2010-01216-MB  
ADEQ LTF No.: 59952

## 1. AUTHORIZATION

This State Water Quality Certification (Certification) is issued by the Arizona Department of Environmental Quality (ADEQ) under the authority of Section 401(a) of the federal Clean Water Act (CWA) (33 U.S.C. §1251 et seq.) and Arizona Revised Statutes Section 49-202. The conditions listed in Section 5.0 are in addition to conditions in the pending U.S. Army Corps of Engineers (CoE) Application No. SPL-2010-01216-MB. These Certification conditions are enforceable by CoE. Civil penalties up to a maximum of \$25,000 per day of violation may be levied if these Certification conditions are violated. Criminal penalties may also be levied if a person knowingly violates any provision of the CWA.

Subject to the conditions in Section 5.0, ADEQ certifies that based on the information in Section 3.0, the activities proposed for the ASARCO Mission Mine Stormwater Controls Project will not violate applicable surface water quality standards in the potentially impacted waterbodies including various unnamed ephemeral washes ultimately tributary to the Santa Cruz River near Sahuarita, Pima County.

### 1.1. APPLICANT INFORMATION

**Project Name:** ASARCO Mission Mine Stormwater Controls Project

Latitude: 31° 57' 36"; Longitude: 111° 03' 36"

**Applicant:** ASARCO L.L.C. - Mission Complex  
Tom Klempel, Environmental Manager  
4201 W. Pima Mine Road  
Sahuarita, Arizona 85729

### 1.2. AUTHORIZING SIGNATURE

\_\_\_\_\_  
Linda Taunt, Deputy Director  
Water Quality Division  
Arizona Department of Environmental Quality

Signed this \_\_ day of \_\_\_\_\_, 2014

## **2. DESCRIPTION OF ACTIVITIES TO BE CERTIFIED**

The project purpose is to construct the structural controls necessary to segregate stormwater runoff from mine facilities from stormwater runoff originating from areas unimpacted by mine activities.

The proposed ASARCO Mission Mine Stormwater Controls Project will directly impact various unnamed ephemeral washes ultimately tributary to the Santa Cruz River by discharge of fill material into waters of the U.S. (WUS). The activities will result in direct permanent impacts to approximately 5.12 acres of WUS, indirect permanent impacts to 0.06 acre of WUS and temporary impacts to 5.57 acres of WUS. The project purpose (construct remedial stormwater controls) as required in an AZPDES permit first issued 10/14/2008 (currently up for renewal) as detailed in the CoE Public Notice No. SPL-2010-01216-MB.

## **3. INFORMATION REVIEWED**

During the development of this State Certification, ADEQ had access to and reviewed the following documents which are on file with ADEQ:

- 3.1. U.S. Army Corps of Engineers Public Notice / Application No. SPL-2010-01216-MB. Comment period from 1/15/14 through 2/16/14.
- 3.2. CWA Section 401 Certification application package dated 1/24/14, and received by ADEQ on 1/27/14. Applicant: Tom Klempel, Environmental Manager (ASARCO L.L.C. - Mission Complex). Agent: Brian Lindenlaub (WestLand Resources, Inc.).
- 3.3. Clean Water Act Section 404 Permit Application
- 3.4. State of Arizona Water Quality Standards for Surface Waters (WQS), Arizona Administrative Code (A.A.C.) Title 18, Chapter 11, Article 1. Designated uses for the potentially impacted waterbodies are: Aquatic and Wildlife ephemeral (A&We) and Partial Body Contact (PBC) (A.A.C. R18-11-105).
- 3.5. Descriptions, maps and design drawings submitted by the applicant.
- 3.6. Comments received in response to the public notice to be issued.

## **4. NOTIFICATION PROVISIONS**

For any correspondence regarding this project, the ADEQ mailing address is:

Arizona Department of Environmental Quality  
Robert Scalamera  
Surface Water Section / 401 Certifications / mailstop 5415A-1  
1110 West Washington Street  
Phoenix, Arizona 85007

For questions or general comments:  
email: rs3@azdeq.gov

Voice: (602) 771-4502

In any correspondence, reference:

ASARCO Mission Mine Stormwater Controls Project  
CoE File No.: SPL-2010-01216-MB  
ADEQ LTF No.: 59952  
401 cert reading file: rs314:009

## **5. CONDITIONS FOR STATE 401 WATER QUALITY CERTIFICATION**

For the purposes of this Certification the following definitions apply:

- Waters of the U.S. (WUS) as defined by the CoE and U.S. Environmental Protection Agency (EPA) under the Clean Water Act. This Certification applies only to activities within a WUS.
- Temporary means no longer than the period of this Certification.
- Native material/fill is defined as pollutant-free soil, sand, gravel or similar material from the streambed or banks in the immediate area of the permitted work.
- Emergency vehicles and emergency responders are not restricted by the conditions in this Certification.

### **5.1. General Conditions**

- 5.1.1. ADEQ's State 401 Water Quality Certification of these activities proposed by the applicable CWA 404 Permit, does not affect or modify in any way the obligations or liability of any person for any damages, injury, or loss, resulting from these activities. This Certification is not intended to waive any other federal, state or local laws.
- 5.1.2. If monitoring, by ADEQ or others, indicates that water quality is adversely affected by the activities certified herein, ADEQ will notify the CoE and request suspension of the CWA 404 permit.
- 5.1.3. Issuance of a State 401 Water Quality Certification does not imply or suggest that requirements for other permits including, but not limited to Aquifer Protection Permits, Arizona Pollutant Discharge Elimination System Permits and Reclaimed Water permits are met or superseded. Applicant should contact ADEQ to ensure all applicable permits are obtained.
- 5.1.4. This Certification applies only to the activities described in Section 2.0 and is based upon the information listed in Section 3.0. This Certification is valid for the same period as the CWA 404 permit, as issued by the CoE. The applicant must apply for renewal, modification or extension of this Certification if the CWA 404 permit is renewed, modified, extended or otherwise changed. This Certification may be reopened, by ADEQ, at any time due to a change (i.e., lowered or more stringent) in a surface water quality standard for a parameter likely to result from project activities. ADEQ may add or modify conditions in this Certification to ensure that the applicant's activities comply with the most recent standard.

- 5.1.5. The applicant shall provide a copy of this Certification to all appropriate contractors and subcontractors. The applicant shall also post and maintain a legible copy of this Certification in a weather-resistant location at the construction site where it may be seen by the workers.
- 5.1.6. The applicant shall notify ADEQ of project completion within 30 days following project completion.
- 5.1.7. The applicant is responsible for all activities certified herein and any exceedences of WQS in any WUS that such activities may cause or contribute to.
- 5.1.8. This Certification does not authorize the discharge of mining, construction or demolition wastes, wastewater, process residues or other potential pollutants to any WUS except as specified in the application and supporting documents and allowed, specified or not prohibited in the CWA 404 permit or elsewhere in this Certification.

## **5.2. Specific Conditions**

Except as specified in the application and supporting documents and allowed, specified or not prohibited in the CWA 404 permit or elsewhere in this certification, the following specific conditions apply to all certified project activities.

### **5.2.1. Erosion Prevention and Hydraulic Alterations**

- 5.2.1.1. Clearing, grubbing, scraping or otherwise exposing erodible surfaces shall be minimized to the extent necessary for each construction phase or location.
- 5.2.1.2. Dredged or fill material shall be placed so that it is stable, meaning after placement, the material does not show signs of excessive erosion. Indicators of excess erosion include: gullying, head cutting, caving, block slippage, material sloughing, etc. Material shall not discharge (e.g., via leaching, runoff) harmful or toxic substances into streams or wetlands.
- 5.2.1.3. Erosion control, sediment control and/or bank protection measures shall be installed before construction and pre-operation activities, and shall be maintained during construction and post-construction periods to minimize channel or bank erosion, soil loss and sedimentation. Control measures shall not be constructed of uncemented or unconfined imported soil, or other materials easily transported by flow.
- 5.2.1.4. The effectiveness of all pollution control measures, including those preventing erosion and affecting sedimentation, shall be reevaluated after each flow event and repaired/modified as needed.
- 5.2.1.5. Direct runoff of water used for irrigation or dust control shall be limited to the extent practicable and shall not cause downstream erosion or flooding nor cause an exceedence of applicable water quality standards.

- 5.2.1.6. Except where the activities certified herein are intended to permanently alter any WUS, all disturbed areas shall be restored and (re)vegetated as indicated in the application documents if approved by the CoE (including offsite/in lieu mitigation). Denuded areas shall be revegetated as soon as physically practicable. Vegetation shall be maintained on unarmored banks and slopes to stabilize soil and prevent erosion. Fill used to support vegetation rooting or growth shall be protected from erosion.
- 5.2.1.7. If retention/detention basins are included in or added to the project, applicant will complete the grading necessary to direct runoff towards retention/detention basins no later than immediately following initial land clearing or rough grading.
- 5.2.1.8. Retention/detention basins shall be sized to accept storm runoff and capture sediment prior to it entering any WUS. Detention basins will provide detention through the use of controlled outflow spillways and shall cause no significant change to the hydraulic conditions of the upstream or downstream WUS outside of the project boundaries. The basins shall be maintained as needed to maintain functionality.
- 5.2.1.9. Activities herein certified shall, as much as practicable, be performed during periods of low flow (baseflow or less) in any perennial WUS, or no flow in the case of ephemeral and intermittent WUS. No work shall be done, nor shall any equipment or vehicles enter any WUS while flow is present, unless all conditions in this Certification are met.
- 5.2.1.10. When flow is present in any WUS within the project area, the applicant and any contractor will not alter the flow by any means except to prevent erosion or pollution of any WUS.
- 5.2.1.11. Any disturbance in the stream bank or streambed areas shall be stabilized to prevent erosion and sedimentation of the waterbody during and after operations. Any disturbed areas shall be contoured and vegetated as soon as practicable.
- 5.2.1.12. Applicant will take measures necessary to prevent approaches to any WUS crossing from causing erosion or contributing sediment to any WUS.
- 5.2.1.13. The applicant shall ensure no adverse change, due to the subject project, has occurred in the stability with respect to stream hydraulics, erosion and sediment load, of any WUS including upstream and downstream from the project. If such change has occurred, the applicant shall take steps to restore the pre-project stability of any impacted segments.

## **5.2.2. Sediment Loads**

- 5.2.2.1. When flow in any WUS in the work area is sufficient to erode, carry or deposit material, activities certified herein shall cease until:
- the flow decreases below the point where sediment movement ceases, or

- control measures have been undertaken; e.g., equipment and materials easily transported by flow are protected with non-erodible barriers or moved outside the flow area.
- 5.2.2.2. Silt laden or turbid water resulting from activities certified herein shall be settled, filtered or otherwise treated to ensure no exceedence of, or reduction from, natural background levels of sediment occurs in any WUS.
- 5.2.2.3. Any washing or dewatering of fill material must occur outside of any WUS prior to placement and the rinseate from such washing shall be settled, filtered or otherwise treated to prevent migration of pollutants (including sediment) or from causing erosion to any WUS. Other than replacement of native fill or material used to support vegetation rooting or growth, fill placed in locations subject to scour must resist washout whether such resistance is derived via particle size limits, presence of a binder, vegetation, or other armoring.

### **5.2.3. Pollution Prevention**

- 5.2.3.1. If activities certified herein are likely to cause or contribute to an exceedence of water quality standards - operations shall cease until the problem is resolved or until control measures have been undertaken.
- 5.2.3.2. Construction material and/or fill (other than native fill or that necessary to support re-vegetation) placed in any WUS, shall not include materials that can cause or contribute to pollution of the WUS. Examples of prohibited fill include pollutant-contaminated soil and materials defined as pollutants or hazardous in Arizona Revised Statutes (A.R.S.) § 49-201.
- 5.2.3.3. Acceptable construction materials that will or may contact water in any WUS are: untreated logs and lumber; natural stone (crushed or not), crushed clean concrete (recycled concrete); native fill; precast, sprayed or cast-in-place concrete (including soil cement and unmodified grouts); steel (including galvanized); plastic and aluminum. Use of other materials may be allowed, but require prior written approval from ADEQ.
- 5.2.3.4. The applicant will erect any barriers, covers, shields and other protective devices as necessary to prevent any construction materials, equipment or contaminants/pollutants from falling, being thrown or otherwise entering any WUS.
- 5.2.3.5. Area(s) must be designated, entirely outside of any WUS, for equipment staging and storage. In addition, the applicant must designate areas, located entirely outside of any WUS, for fuel, oil and other petroleum product storage and for solid waste containment. All precautions shall be taken to avoid the release of wastes, fuel or other pollutants to any WUS.

- 5.2.3.6. Any equipment maintenance, washing or fueling that cannot be done offsite will be performed in the designated area. All equipment shall be inspected for leaks, all leaks shall be repaired and all repaired equipment will be cleaned to remove any fuel or other fluid residue prior to use within (including crossing) any WUS.
- 5.2.3.7. A spill containment plan shall be maintained onsite to ensure that pollutants are prevented from entering any WUS. Any pollutant generated by activities certified herein shall be properly disposed of in accordance with applicable regulations.
- 5.2.3.8. A spill response kit will be maintained in this (these) area(s) to mitigate any spills. The kit will include material specifically manufactured and sold as spill adsorbent/absorbent and spill containment. The applicant will ensure that whenever there is activity on the site, that there are personnel on site trained in the proper response to spills and the use of spill response equipment.
- 5.2.3.9. Upon completion of the activities certified herein (except as noted in condition 5.2.3.10 - concrete curing), areas within any WUS shall be promptly cleared of all forms, piling, construction residues, equipment, debris or other obstructions.
- 5.2.3.10. If fully, partially or occasionally submerged structures are constructed of cast-in-place concrete instead of pre-cast concrete, applicant will take steps; e.g., sheet piling or temporary dams, to prevent contact between water (instream and runoff) and the concrete until it cures and until any curing agents have evaporated or otherwise cease to be available; i.e., are no longer a pollutant threat.
- 5.2.3.11. Washout of concrete handling equipment must not take place within any WUS and any washout runoff shall be prevented from entering any WUS.
- 5.2.3.12. Any permanent WUS crossings other than fords, shall not be equipped with gutters, drains, scuppers or other conveyances that allow untreated runoff (due to events equal to or lesser in magnitude than the design event for the crossing structure) to directly enter a WUS if such runoff can be directed to a local stormwater drainage, containment and/or treatment system.

#### **5.2.4. Temporary and Permanent Structures**

- 5.2.4.1. Permanent pipes, temporary pipes and culvert crossings shall be adequately sized to handle expected flow and properly set with end section, splash pads, headwalls or other structures that dissipate water energy to control erosion.
- 5.2.4.2. Debris will be cleared as needed from culverts, ditches, dips and other drainage structures in any WUS to prevent clogging or conditions that may lead to washout.

- 5.2.4.3. All temporary structures constructed of imported materials and all permanent structures, including but not limited to, access roadways; culvert crossings; staging areas; material stockpiles; berms, dikes and pads, shall be constructed so as to accommodate overtopping and resist washout by streamflow.
- 5.2.4.4. Any temporary crossing, other than fords on native material, shall be constructed in such a manner so as to provide armoring of the stream channel. Materials used to provide this armoring shall not include anything easily transportable by flow. Examples of acceptable materials include steel plates, untreated wooden planks, pre-cast concrete planks or blocks; examples of unacceptable materials include clay, silt, sand and gravel finer than cobble (roughly fist-sized). The armoring must, via mass, anchoring systems or a combination of the two, resist washout.
- 5.2.4.5. No vehicles or equipment shall ford any unarmored WUS crossing when flow is present.
- 5.2.4.6. Any ford, other than fords on native material, shall be designed, and maintained as necessary, to carry the proposed traffic without causing erosion or sedimentation of the stream channel while dry or during a flow event equal to or less than the design event for the crossing.
- 5.2.4.7. No unarmored ford shall be subject to heavy-truck or equipment traffic after a flow event until the streambed is dry enough to support the traffic without disturbing streambed material to a greater extent than in dry conditions. Light vehicles (less than 14,000 pounds gross weight) are not restricted by this condition.
- 5.2.4.8. Temporary structures constructed of imported materials are to be removed no later than upon completion of the permitted activity.
- 5.2.4.9. Temporary structures constructed of native materials, if they provide an obstacle to flow, or can contribute to or cause erosion, or cause changes in sediment load, are to be removed no later than upon completion of the permitted activity.